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May 16, 1996

Mr. William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street
Washington, D.C. 20554

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Dear Mr. Caton,

Enclosed please find one original plus seven copies of comments pertaining to the Commission's Notice of Proposed Rulemaking in MM Docket 96-58, FCC 96-118. Questions concerning these comments should be addressed to the undersigned.

Sincerely,



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Notice of Proposed Rulemaking

MM Docket 96-58

FCC 96-118

Comments of Thomas G. Osenkowsky

**Before the
Federal Communications Commission**

MM Docket No. 96-58, FCC 96-118

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The Commission has initiated a proposal to simplify certain processes and filing procedures. This commenter wishes to suggest additional refinements which would allow licenses greater flexibility in facility design and operation while eliminating superfluous paperwork and filings which contain mainly irrelevant information.

The Commission has addressed several issues relevant to FM stations, namely the replacement of FM directional antennas and subsequent operation at reduced power. Unlike many other countries, broadcasters and the Commission alike are seemingly obsessed with the issue of power. Operating an FM transmitter at reduced power can actually create interference, especially in the form of harmonic and/or spurious radiation. Most FM transmitters operated at reduced power i.e. a 20 kw transmitter operated at 10 kw are factory modified by adding fixed screen dropping resistors, increased grid bias voltage, reduced plate voltage by transformer taps, reduction of RF drive or any combination thereof. Changing any of the foregoing parameters upsets the operating impedance of the driver and final tube(s) and thus the characteristics of the transmitted signal. Power reduction of significant amounts is not readily possible using front panel controls (i.e. screen voltage, output loading, etc) especially in older transmitters. This writer has remedied a number of FM transmitters, mainly older models, having such problems. One, in fact, had a harmonic filter which was too hot to touch. The Commission must recognize that power and field are not directly proportional, hence this writer submits that operation at full power pending approval should be allowed unless a validated complaint of substantial interference is received in writing by the station. Replacement of a directional antenna with an exact duplicate should not necessitate any notification to the Commission.

With the growth of communications facilities comes the construction of many new towers (cellular, PCS, business band, SMR, etc). In some cases, a new tower is located in close proximity to a directional AM station.

The Commission has proposed to incorporate a new Rule section (73.1692) to address this issue. In certain instances, the concern over distortion of the directional pattern is over zealous and unfounded. For example, the licensee of a low power TV station was granted a CP to erect a 20 foot tower atop an existing office building within 3.2 km of a two tower AM directional antenna. By itself, the 20 foot tower would not materially disturb the pattern due to its relative shortness compared to the wavelength. The TV station was required nonetheless to perform before-and-after partial proof measurements on the AM station despite the fact that the office building was over six times the height of the licensed 20 foot tower. Although these facts were brought to the Commission's attention proofs were nevertheless required. This placed an undue burden on both licensees since it was necessary to operate in the directional mode during daytime hours to facilitate monitor point readings on all radials. The AM station is licensed for nondirectional operation during daytime hours.

In another situation, a presently licensed AM station has been granted a CP to construct an additional tower to facilitate directional nighttime operation. This new tower falls within 3.2 km of an existing two tower array. The existing DA operates with substantially the same pattern during day and night modes, with tighter field ratios at night to afford additional suppression to co-channel stations. The newly licensed tower resides in one of the nulls making it an unlikely candidate for pattern distortion.

This writer urges the Commission to allow waiver requests for these often times superfluous partial proofs for several reasons. First, if the new tower(s) is constructed during winter months and the original proof was conducted during summer months, it may be likely that the "before" proof may demonstrate noncompliance with the terms of the station license. This would burden both licensees and may tempt unnecessary tinkering with the phasor and coupling units. Second, directional operation, especially during ratings periods can adversely impact the operation of the directional station. Most reradiators, if short compared to the wavelength, are inherently poor in their propagation characteristics. If the reradiator is not well illuminated (i.e. located in a pattern null) it is nearly invisible in the far field. Most of the analysis of a proof-of-performance concerns itself with the Inverse Distance Field at one kilometer. In fact, a reradiator may disrupt this IDF for distances close to the array. Its poor propagation, however, makes a *de minimis* impact on the neighboring stations requiring protection (i.e. at great distances).

Detuning a reradiator is expensive and requires regular maintenance. Often times, a broadcast licensee has no access to the (new) tower making determination of its DA pattern a difficult task should a monitor point read high, etc. There presently exist a number of powerful Moment Method based computer programs which can determine with precision the degree of impact a new tower(s) may have on an AM directional or nondirectional pattern. The Commission is urged to allow 1996 computer based technology to request waiver from the proof requirement pending favorably demonstrated evidence that substantial interference would not result from the construction of a nearby tower.

The Commission has requested comment on matters relating to issues addressed in the NPRM. The Commission presently requires the submission of information this writer feels is irrelevant. Most information would best be maintained in the licensee's files instead of burdening the Commission with unnecessary applications. For example, a station license will specify "Type Accepted Transmitter" yet Form 302-FM requests idiotic information such as Plate Voltage, Plate Current, etc. Type Accepted Transmitters are no longer required to provide such metering. Parameters such as efficiency, voltage, current, etc are superfluous. The number of antenna bays is likewise irrelevant to the licensing process since a station license will specify a value of ERP at a specified HAAT. The method by which the licensee generates the ERP is up to the licensee. This writer believes that no notification of any kind should be required when changing antennas, transmitters, transmission lines, etc. The licensee should, however, be required to maintain adequate demonstration of how this ERP is achieved in its Public File. A public domain (free) computer program called TPO was written by the undersigned which contains an extensive database of all known antennas and transmission lines for this purpose. The process of filing Form 302 for FM antennas is unnecessary and should be eliminated in circumstances where the HAAT and ERP remain unchanged.

The issue of Main Studio location waiver requests is addressed in the NPRM. Presently, the definition of Main Studio causes undue burden on many licensees. For example, many stations have been or are in the process of being acquired by large corporate chains. The advantage/disadvantage of this practice is not an issue being addressed herein.

The requirement to maintain a Main Studio in or near the “City of License” is burdensome where a multiple licensee wishes to centralize operations, perhaps in a distant city. Numerous stations serve ethnic, religious or minority audiences. These stations might not otherwise be on the air if not for the ability to centralize operations and abandon the Main Studio concept. This fact is also true for healthier operations. The requirement for “management presence” is an undue burden and outmoded by today’s broadcast standards. This writer is of the opinion that any location should be able to serve as a Main Studio regardless of geographic relationship to the “City of License” without further authority by the Commission. The licensee should be required to notify the Commission of the Main Studio location for communication and inspection purposes. This is currently the freedom allowed by the Commission’s technical monitoring rules. A toll free telephone number should be maintained in the “City of License”. Today’s electronic communication media such as the Internet would allow the public to view any required documents at their leisure and at no charge. Many public libraries offer free Internet/Web access. The Main Studio concept is dead and the so-called “City of License” is currently defined by ratings companies and marketplace forces, not the Commission’s frequency allocation tables.

The issue of ERP polarization is addressed in this NPRM. In order to simplify licensing, the value of ERP should be stated in absolute terms regardless of polarization. This would give licensees the freedom to select polarization in order to best serve their audience. For example, a secondary Class D FM station occupying a channel in the commercial band was denied vertical only polarization. Since the TPO is limited to ten watts by regulation, V-POL would be the method of choice since the majority of the audience is mobile. Generating ERP in the H-POL mode was viewed as wasteful. Licensees should be able to operate in any polarization as long as the licensed ERP is not exceeded in any polarization. Although a discussion of wave propagation is beyond the scope of these comments it is sufficient to state that depolarization is severe in many cases due to natural and man made terrain. Burdening the Commission with specifics as to polarization content is viewed as unnecessary.

The remaining issues raised by the NPRM are generally supported and encouraged by this writer.